



Executive Summary

Trivox™ Shooting Simulator is a world leader in the design/manufacture/sales of interactive simulators for the purpose of public safety/security and military training. In addition to the simulators *Trivox™* produces, *Trivox™* also creates training content to be utilized within the simulators or as a stand-alone product. The strength of *Trivox™* is the ability to be a resource and a solution for the assurance that learning is taking place. In the Public safety/security and military arena there is a never-ending thirst and requirement for new and continual training.



Trivox™ Shooting Simulator has recently created “**Fight-Flight**” program for the purpose of answering the need for professional shooting ranges/clubs/and shooting organizations worldwide, to have the ability to “shoot” in a safe environment.



Trivox™ Shooting Simulator (Fight-Flight)

Trivox™ Shooting Simulator technology used in Law Enforcement training is the latest in video technology. The **RED** camera that has been used to produce Hollywood movies in 4k resolution is used to produce the professional *Trivox™ Shooting Simulator* Training scenarios. Attention to every detail is paramount in creating the most realistic scenarios.



Trivox Global Security Group, Singapore

Trivox™ Shooting Simulator “Fight-Flight”



The *Trivox™ Shooting Simulator (Fight-Flight)* System will allow for fun and entertaining shooting, as well as serious CCW and Home Protection situations. The system is delivered with scenarios and shooting exercises like; static targets, moving targets, games and many more.

The system also allows for many gun options from using your real firearm adapted with a recoil kit or fitted with a dry fire laser.



Subject Matter Experts (SME's)

Trivox™ contracted with over 50 subject matter experts to write and advise on the courseware content. These SME's make up our “Training Table”.

The Chief Master Instructor of Trivox™ served in the premier VIP protection unit of Singapore for more than a decade, taking care of top profile and sensitive political figures in the Republic of Singapore. Scenarios are written by Law Enforcement professionals and real life situations are constantly being re-enacted for training points.

Our Subject Matter Experts present the most advanced tactics and time proven methods that cover a variety of topics.

Video Program – Use of Force, Judgmental program;

The *Trivox™ Shooting Simulator (Fight-Flight)* has scenario guides, but the instructor verbalizes the introduction of a scenario to fit their training objective and to make the scenario relevant to the training.





Trivox™ Shooting Simulator (Fight-Flight) – Complete Computer and Projection System

Courses Software included:

- ℱ Basic Firearms Education
- ℱ Firearms Safety
- ℱ Firearms Ethics & Responsibilities
- ℱ Personal Safety
- ℱ Defensive Concealed Carry
- ℱ Defensive Shooting & Tactics
- ℱ Situation Based Use of Force
- ℱ Home Defence
- ℱ Women's programs

Each scenario branch can:

- ℱ Be set to flow or the instructor can cause an immediate branch to reward, cause effect or make the scenario flow as in real life.
- ℱ Be branched (changed) by the instructor in response to the trainee’s presence in the room, where the trainee moves will affect the outcome.
- ℱ Be branched off the trainee’s verbalization. Scenarios will respond to specific commands.
- ℱ Be de-escalated in real time by the instructor in response to the trainee’s actions; they can also be escalated by the trainee’s actions.
- ℱ Branch and scored by the introduction of a laser. The laser can come from the OC/Gas canister that is a real size and shape modified to fire a laser pulse and the persons hit on the screen will react as if they were sprayed.
- ℱ Branch and be scored by the introduction of a laser fired from the TASER trainer. The TASER device is manufactured by TASER and is a safe weapon. It fires two lasers at an 8 degree spread and both lasers have to hit the suspect to be effective.
- ℱ Branch off the introduction of a laser fired from a Pepperball gun or 37 / 40 MM launcher.
- ℱ Branch by the instructor manually if the trainee decides, as a force option, to use the baton. The system will also score the use of baton.
- ℱ Branch and score the use of a firearm or multiple firearms. The reaction of the suspect of the screen will depend on shot placement.
- ℱ Branch by the introduction of a shotgun laser. The shotgun laser can be set to be pellets, slug or less lethal rounds.
- ℱ Branch by the introduction of any long gun and the system will score accordingly.
- ℱ The system can be set to recognize a laser as any device you have or will have in the future, you assign the laser code to the computer and the device will function and branch the scenarios accordingly based on your customizable scoring per scenario and target.





Value added modules (Option):



- ℒ Flashlight capability: includes add on flashlight detection camera and flashlight
- ℒ Recoil Kits for Pistols
- ℒ Recoil Kits for Rifles
- ℒ Laser inserts for all weapons including less lethal weapons such as Baton, OC/Gas canister or Taser



Marksmanship Module; with Ballistic and World Designer.

The Marksmanship Editing software allows you to take any photo and create marksmanship courses for use on the system for up to 6 lanes. It includes an easy to use and intuitive system for defining target location, timing, and movement, hit zones.





Marksmanship Course of Fire Program allows for:

- ℱ 1 to 6 lanes of marksmanship, 1 lane would include the entire screen up to the screen being divided equally into 6 lanes.
- ℱ Targets to be programmed to the limits of the resolution of the projections system.
- ℱ Each shot scored only in a particular individual’s lane.
- ℱ A target library that is used to import Jpg files of targets to be set up in a 3D world environment.
- ℱ Customizable scoring zones on the target.
- ℱ Programmable atmospheric conditions to include wind speed and direction, snow, rain, dust storms.
- ℱ Different target appearances, either pop-up targets, turning, swivel, rise, descend.



Results per lane, pass/fail, score.



Programmable sub stages within a course of fire

Programmable real world ballistics:

One of the most important factors to marksmanship training is to have real world ballistics. The *Trivox™* ballistic calculator is one of the most sophisticated ballistic calculators available in the simulation world. Not only does the calculator account for bullet weight and powder charge and factor in wind conditions, it can also take effects such as altitude; barometric pressure, temperature, and relative humidity. These are key factors to sniper training.

Firearm Authoring Station

The *Trivox™ Shooting Simulator (Fight-Flight)* has a built in authoring station capability for both video and marksmanship. This authoring capability is a STANDARD item.

Air recoil devices (Optional)

Trivox™ Shooting Simulator (Fight-Flight) uses tethered and tetherless recoil air gun kit devices. The recoil kit is a drop in recoil system for semi-automatic and automatic firearms. Most types of firearm “kits” are available.

The recoil kit requires the user to “convert” their firearm to adapt to the simulation system.

The kit in no way alters the physical characteristic of the firearm and conversion takes only minutes. The recoil is provided by disposable CO2 canisters.



Advantages of the recoil device;

- ℱ Internal gas storage offers unlimited mobility in the training room with the firearm.
- ℱ Each kit is designed to quickly drop into place without special tools and to convert a regular firearm into an effective training fun.
- ℱ Using compressed gas instead of ammunition gives the opportunity to fire a large number of simulated rounds at a negligible cost.
- ℱ After a training session, the entire assembly can be quickly removed from the firearm making the firearm available again for use with live ammunition.
- ℱ Trigger is not altered in any way so the trainee can practice with the actual trigger.
- ℱ Mechanism operates at correct cyclic rate while producing noticeable recoil and blast.
- ℱ The tethered versions are only tethered to the service belt.

Laser Inserts with vibration (firing pin activated) - Option



All *Trivox™ Shooting Simulator (Fight-Flight)* system lasers operate with commercial available batteries. Each laser is 9mm in diameter and will slide into the breach end of a semi-automatic double action firearm. The lasers are fitted with sizing rings to make each laser adaptable for 9mm, 40. or 45 caliber. The laser is IR and cannot be seen by the shooter, not allowing them to walk in rounds. Up to 6 shooters can participate simultaneously and have independent lane detection.

These lasers are designed to fit into the chamber of a 9mm pistol and can operate in an airsoft pistol or rifle.





Live Fire Option

The **Trivox™ Shooting Simulator (Fight-Flight)** system live fire option allows the customer to use their own firearm for use of force training and for Marksmanship training. The live fire option includes a specialized laser that mounts to the customer's firearm that allows the system to recognize the bullet placement on the screen, and includes all of the features and functions of the **Trivox™ Shooting Simulator (Fight-Flight)**.

- ℳ The laser is easy to mount.
- ℳ Firearm and laser combination fits into most duty holsters.
- ℳ Any surface that can be projected on can be fired on. For example butcher paper can be hung on existing target carriers.
 - End user to provide screen and proper backstop.
 - Or **Trivox™** can provide a self-sealing rubberized screen - additional costs apply.
- ℳ Calibrates in seconds.
- ℳ The **Trivox™ Shooting Simulator (Fight-Flight)** allows for the use of a combination of live fire and laser devices. The only simulator on the market that allows for both laser and live fire simultaneously.



Live Fire Simulation History

Original Live Fire simulation systems comprise of acoustical, thermal or large paper roll screens (all still in use by the competition). These screens are big/bulky/heavy, and expensive. These type screens also take up a lot of space on a live fire range. Only 1 live firearm can be used at a time, with no laser devices, it is either Live or Laser fire.

Disclaimer: End user to provide proper firing range / back stop facility. **Trivox™** is not responsible for live fire option use on non-authorized firing range.

STANDARD FEATURES with options (*):

- ℳ Windows Professional Operating System
- ℳ Translation Tool
- ℳ Self-Calibration
- ℳ 22" Flat Panel Monitor, Keyboard and Optical Mouse
- ℳ Real-Time Feedback
- ℳ Audio and Visual Feedback
- ℳ True High Definition Video Projector
- ℳ 16 x 9 Aspect Ratio Screen
- ℳ 5.1 Surround Sound Speaker System (amplifier upgrades available)
- ℳ Exclusive Scenario and “On-the-Fly” 3-D Audio
- ℳ 6 Independently Detected Devices – 6 Separate Shooters
- ℳ Picture in Picture Recording and Playback of Trainee – Audio and Video
- ℳ Training Scenario Library over 450+ Scenarios provided in quoted price
- ℳ Customizable Scenarios
- ℳ Training User Manuals
- ℳ Classroom Permanently Mounted System *
- ℳ Scenario Course Editing Software *
- ℳ Low Light/Flashlight Training *
- ℳ Baton Branching *
- ℳ Report Generation With Template Designer *
- ℳ 1 year warranty on hardware/software *



Windows7 Professional Operating System with Office

The system comes with Windows Office for running any type of PowerPoint, Word Doc. Excel for the purpose of using the entire system with both the Training room Classroom training system and for any multimedia training the department sees fit.

True High Definition Video Projector

Widescreen High Definition Home Cinema Projector. 5500; 1 Contrast Ratio with Smooth Screen Technology, 16.9 Native Resolution 1280x720 Pixel HD LCD Panels.

5.1 Surround Sound Speaker System

Front Left, Front Right, Center, Rear Right, Rear Left and a Subwoofer make up the speaker system.

22" Flat Panel Monitor, Keyboard & Optical Mouse

Trivox™ Shooting Simulator (Fight-Flight) comes with a 22" flat panel monitor, optical mouse with magnification feature, allowing the instructor to zoom in on scenarios in debriefs.

Cabling & connectors

Standard cables and connectors can be supplied.

Low Light / Flashlight

Trivox™ Shooting Simulator (Fight-Flight) allows for the use of actual flashlights (covered by special filters). The instructor can set any lighting level for the scenario forcing the use of a flashlight to light up portion of the screen that the trainee wants to see. Multiple flashlights can be used. This does not affect the use of any laser device.

Scenario Editor/Software

The Scenario editing software allows you to take any video file footage (standard definition or High Definition) and create multiple branching scenarios for use on the system. It includes an easy to use and intuitive system for defining scenes, hit zones (for firearm, OC, TASER, etc.) and branching options.

Training Scenario Library 450+

These scenarios are professionally filmed and edited scenarios created by our in house production team. All Scenarios are in High Definition video.

Customizable Scenarios

Every scenario on the system can be changed by the end user. The end user can redefine hit zones, branching points or any other aspect of the scenario in order to more closely match your requirements, policies or training objectives.

Baton Branching

Instructor driven branching that shows the appropriate on screen reaction to a baton strike should the trainee feel that the baton was the correct force option.

Report Generation w/ Template Designer

Name, Time, Date and Scenario Title to intricate reports detailing time and location of shots can be created using this software. This software can output reports electronically, or into standard formats such as Microsoft Excel, Microsoft Word, etc.

PiP - Recording and Playback of Trainee – Audio and Video

The trainee's actions are recorded during the training session by a video camera. This footage, with audio, is then available for playback, picture in picture format, synchronized with the scenario. This allows the instructor and the trainee to view what actually occurred during the session removing any guesswork.



Exclusive Scenario and “On-the-Fly” 3-D Audio

5.1 Surround Sound was recorded during filming and/or added in post-production. The system then plays audio from appropriate locations during scenario playback.

Also, the instructor can play any audio file from a specific location in the training room to provide directional stimulus to the trainee.

Documentation

System operation manual will be delivered with the system both hardcopy and in pdf format. (English)

TRAINING

- ℳ Full Colour Operations Manual
- ℳ Videos on the DVD and desktop for refresher training
 - « Simulation Room Setup
 - « System Setup
 - « Calibration
 - « Run Screen menus and options

Training Options:

- ℳ A **Trivox™** Instructor may travel to end users location for end user training, this must be purchased separately, and is priced separately.
- ℳ The Representative may travel to **Trivox™** partnered US facility for training, (at the Reps cost) the training fee is attached. At the end of the training, the trainee becomes a Certified Instructor able to instruct others on the **Trivox™ Shooting Simulator (Fight-Flight)**.

Course Outline:

Trivox™ Shooting Simulator (Fight-Flight) Train-the Trainer Certification Course

Trivox™ is committed to providing the best, most advanced and effective training to our customers. It is critical that our customers not only know how to operate the **Trivox™ Shooting Simulator (Fight-Flight)** system and its components, but also how to safely and effectively provide training in the simulated environment. This entire course provides agencies with the best possible training and reduces agency liability due to the depth of the training received.

Course Description:

Trivox™ Shooting Simulator (Fight-Flight) course of simulation instruction is designed to train selected trainees in the set-up, function, operation and maintenance of the system and Training Room™ interactive simulation systems, manufactured by **Trivox™**. These systems utilize the latest advances video, laser, RF and programming technology to provide an intuitive, easy to maintain training tools. These tools are designed to aid in teaching Public Safety Personnel to effectively and safely perform their duties. This course begins with classroom theory and progresses to “hands on”, proficiency based exercises. **Trivox™** recognizes that even the most advanced technology is useless in the hands of someone who cannot effectively operate and maintain that technology. In addition to setup, operation and troubleshooting of the simulator, this course includes an Instructor development block entitled “Effective Simulation Training.” Developed in conjunction with an accredited college and backed by scientific research, this portion of the course contains the latest training techniques and methodologies for providing effective training in a simulated environment. Some of the components of this section of the course are listed below for reference:

- ℳ Need and Justification for Simulation Based Training
- ℳ Training Area Set Up
- ℳ Training Objectives
- ℳ Training Evolution Lesson Planning
- ℳ Scenario Implementation
- ℳ Effective Debriefing and Documentation of the Training



Successful completion of the entire course of instruction provided by *Trivox™* certifies the attendees as “Simulation Instructors.” As such they can provide training to members of their agencies and with advance (#) and intermediate modules (#), they are also able to certify others as “Simulation Master Instructors” (#).

#Course fees applies – Contact us: email@trivox.com.sg for details

Warranty

1 year warranty is included; multi years can be purchased optional. Warranty includes defects in hardware and software that are not caused by abnormal use by customer. Most hardware replacement parts can and will be purchased locally. Warranty period starts after system is delivered.

OPTIONS

- ☞ Onsite Training available, Train-the-Trainer Course by Chief Master Instructor from Singapore - 3 day class.
- ☞ *Trivox™ Shooting Simulator (Fight-Flight)* Certification endorsement
- ☞ Training at US range
- ☞ Customised Live Fire Option

Exclusions

Trivox™ is not responsible for the following:

- ☞ Offset Liabilities if applicable
- ☞ Singapore Customs and duties/taxes
- ☞ Storage of delivered equipment safe from the elements
- ☞ In country customs clearance/taxes
- ☞ Proper facilities/power/fixtures and fittings
- ☞ Pictures herein are for illustration purposes only. Actual product may vary.
- ☞ Quote is subjected to final confirmation. *Trivox™* reserves the right to change its prices and products of equivalent without prior notice.

Shipping/Flight

Customer preference

Payment Terms

Cash/TT/Western Union